

COMBINATIONS OF RESIN COMPOSITIONS  
AND METHODS OF USE THEREOF

ABSTRACT

**[0108]** A composition for use as underfill material is provided. The underfill material includes a first curable transparent resin composition and a second curable fluxing resin composition. The first curable resin composition includes at least one aromatic epoxy resin in combination with a solvent, a functionalized colloidal silica dispersion, and at least one other component selected from the group consisting of cycloaliphatic epoxy monomers, aliphatic epoxy monomers, hydroxy aromatic compounds and combinations and mixtures thereof, thereby forming a solvent-modified resin. The second curable fluxing composition includes at least one epoxy resin. The combination of the two resin compositions is useful in producing underfill materials and is suitable for use as an encapsulant for electronic chips.